CL 8-112. Factor and use the Zero Product Property to find the roots of the following quadratic equations.

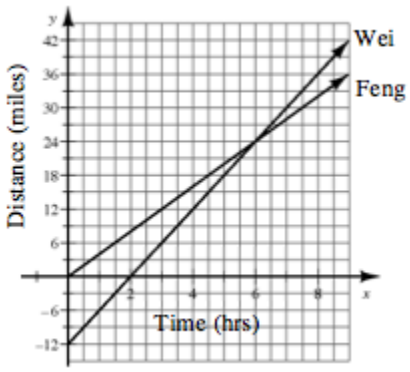
a. $0 = x^2 - 7x + 12$
b. $0 = 6x^2 - 23x + 20$
c. $0 = x^2 - 9$
d. $0 = x^2 + 12x + 36$

CL 8-113. The price of milk has been steadily increasing 5% per year. If the cost of a gallon is now \$3.89:

a. What will it cost in 10 years?
b. What did it cost 5 years ago?

CL 8-114. Use the graph below to answer the questions below.

a. One of these lines represents Feng, and one represents Wei. Write an equation for each girl's line.
b. The two girls are riding bikes. How fast does each girl ride?
c. When do Feng and Wai meet? At that point, how far are they from school?



CL 8-115. Graph $y = x^2 - 2x$. Identify the y-intercept, x-intercepts, and the vertex.

CL 8-116. Find the coordinates of the y-intercept and x-intercepts of $y = x^2 - 2x - 15$. Show all of the work that you used to find these points.

CL 8-117. Without using a calculator, simplify using only positive exponents.

a. $(9^{1/2}x^2y)(27^{1/3}y^{-1})$

b. $(x^{1/2})^{-2}$

c. $(\frac{1}{125})^{2/3}$

d. $\frac{8x^3}{-2x^{-2}}$

CL 8-118. Quinn started off with twice as much candy as Denali, but then he ate 4 pieces. When Quinn and Denali put their candy together, they now have a total of 50 pieces. How many pieces of candy did Denali start with?

CL 8-119. Given the two points $(-24, 7)$ and $(30, 25)$,

a. What is an equation of the line passing through the points?
b. Is $(51, 33)$ also on the same line? Explain your reasoning?

CL 8-120. Write the equation of the following two sequences.

1. $100, 10, 1, 0.1, \ldots$
2. $0, -50, -100, \ldots$